

CLAIMS

1 1. Method for the automatic recognition of the available simulation
2 configurations of integrated circuits under design comprising at least two
3 components connected to one another directly or indirectly, for the functional
4 verification of said circuits through simulation tests, characterized in that it
5 comprises:

6 - a step for the acquisition of a simulation configuration by a first manager,
7 called a "server manager" (14), associated with the simulator, during the
8 initialization of the simulator program, during which all the constructors of
9 HLL (C++) instances of components present in the current global
10 simulation model are called, each of these constructors registering (35) its
11 presence by transmitting its own parameters (label, type, HDL path, etc.)
12 to the server manager, which constructs the instance table of the
13 components,

14 - a step for the sending of a request by a second manager, called the "client
15 manager" (11), to the server manager (14) in order to learn whether the
16 components expected in a configuration by the client manager (11) are
17 present and what their positions (indicated by the labels) and their types
18 are,

19 - a step for the sending of a response by the server manager (14) to the client
20 manager (11), after a consultation of the instance table of the components,
21 which response contains the instances of the components present and/or an
22 error notification in case of the absence of one or more expected
23 components, and for the storing of the response in at least one
24 configuration model storage table (12) by the client manager,

25 - a step for the comparison by the client manager (11) of the response with
26 the requirements of the test, followed by a step for the disabling, activation
27 and/or modification of certain parts of the test by the client manager (11)
28 in order to adapt the test to the configuration, or the signaling of an error if
29 that proves impossible.

1 2. Method for the automatic recognition of configurations according to
2 claim 1, characterized in that the simulation configurations are generated from
3 configuration generation data (MGHLL, MGHDL) prior to the utilization of the
4 method according to the invention.

1 3. Method for the automatic recognition of configurations according to
2 claim 2, characterized in that the generation of the simulation configurations is
3 handled by an operator.

1 4. Method for the automatic recognition of configurations according to
2 claim 2, characterized in that the generation of the simulation configurations is
3 handled by an automatic configuration generator (17).

1 5. Method for the automatic recognition of configurations according to
2 any of claims 1 through 4, characterized in that the step for sending a request is
3 followed by a step for the translation of said request, by a program interface (API
4 CONF), into a language understandable by the first manager (14), and in that the step
5 for sending a response is followed by a step for the translation of said response, by
6 the program interface (API CONF), into a language understandable by the second
7 manager (11).

1 6. Method for the automatic recognition of configurations according to
2 any of claims 1 through 5, characterized in that it operates in a client-server
3 architecture, the first manager (11) being located in the server (10) and the second
4 manager (14) being located in the client (13).

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1 7. System for the automatic recognition of the available simulation
2 configurations of integrated circuits under design for implementing the method
3 according to the invention, characterized in that it comprises a first manager (14)
4 equipped with means for formulating and/or analyzing a message, storage means,
5 and means for filling and consulting at least one table, called an instance table, of the

6 components (15) present in each configuration, and in that it comprises a second
7 manager (11) equipped with means for formulating a message and/or a request,
8 means for analyzing a message, and means for filling and consulting at least one
9 table for storing the configuration models (12).

1 8. System for the automatic recognition of configurations according to
2 claim 6, characterized in that the second manager (11) is equipped with means for
3 disabling, activating and/or modifying certain parts of the test in order to adapt the
4 test based on the response.